

September 21<sup>st</sup>, 2005



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Mobile Source Control Division  
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Subject: Comments regarding Diesel Off-Road Equipment Measure Preliminary  
Regulatory Concepts

Dear Kitty:

We appreciate you and your staff working with stakeholders to develop an off-road diesel engine rule that improves air quality and is appropriate for the engine population in California. We are committed to working with CARB staff and playing a positive role in this important area.

We have reviewed the Diesel Off-Road Equipment Measure Preliminary Regulatory Concepts ("Regulatory Concepts") dated July 12, 2005, and are providing in this letter preliminary comments, which can be divided into four main areas:

1. The Regulatory Concepts place an increased burden on companies that have invested in Tier 1, 2 and 3 engines by requiring retrofits on those engines while allowing many Tier 0 engines to be bypassed until 2015.
2. The time frame for implementation is extremely aggressive and will require excessive capital investment over a period of less than 10 years. An estimate of the investment costs must be determined prior to adoption of the regulation.
3. The Regulatory Concepts use a Best Available Control Technology (BACT) approach that is based on available Verified Diesel Emission Control Systems (VDECS). Operators must track available VDECS and match it to individual pieces of equipment in their fleets. This not only places an undue burden on operators with large fleets, it results in emission reductions that are based on available VDECS and not on a priority ranking based on emission rates. This is a technology driven approach that does not focus on areas where the greatest results can be achieved.
4. Enforcement of this rule will be extremely difficult without a well-conceived enforcement mechanism. In the absence of appropriate enforcement, CARB will be creating the potential for companies to achieve an unfair business advantage by not complying with the regulation. This is a particularly important issue with this rule because of the extremely large capital investment companies like Granite will have to make to comply.

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The following are more specific comments presented in chronological order of the July 12<sup>th</sup>, 2005 Preliminary Regulatory Concepts.

**Performance Requirements –**

Compliance Flexibility, Page 1:

Although it is not clearly written in this section, bullet point number 3 appears to allow a majority of Tier 0 equipment to operate unchanged, at least during the early years of the program. There are no VDECS for tier 0 equipment, and it appears there will not be. There are no re-power options for a majority of Tier 0 equipment, and a user can probably establish a case that it is not commercially feasible to replace their equipment. It appears that the Regulatory Concepts would allow most Tier 0 equipment to remain in use until 2015 while Tier 1, 2 and 3 equipment will require retrofitting. This illustrates how the rule does not focus on areas where the greatest gains can be achieved and penalizes companies that have already invested in upgrading their fleets.

Newly Purchased or Leased Equipment, Page 2:

The proposed regulation will place certain requirements on equipment newly purchased or leased on or after December 31, 2007.

> 175 hp: At time of purchase or lease, equipment must have an engine meeting the final after-treatment based Tier 4 PM standard, or have the highest level VDECS available on each engine at the time of purchase.

This proposed regulation is too aggressive and is infeasible due to a lack of available technology. As noted in footnote number two in the Regulatory Concepts, Tier 4 PM standards are not required to be met by manufacturers until 2011-2013 for engines  $\leq 750$  hp and 2015 for engines  $> 750$  hp. Whether Verified Diesel Emission Control Systems will be available, affordable, and technically feasible is unknown. If neither PM reduction technology is available, one could read this to indicate that new equipment  $> 175$  hp can not be sold or leased in the state of California after December 31, 2007 until such time that either a Tier 4 engine or a VDECS is available.

In-Use Equipment:

This entire section is based on speculation that verified retrofit technologies will be available. The State of California will play a key role in verifying technologies and making this information available. It will be very difficult for operators to stay informed about what VDECS technologies are available and what the VDECS is verified for. At the rate technologies have been verified, we expect that affordable and application-proven technologies will not be verified for the majority of operating machines within the time frames proposed.

Current verified technologies appear to only fit later model engines, and they are restricted to limited engine families. The only current verified Level 3 VDECS is an actively regenerated diesel particulate filter that would add a tremendous maintenance burden and additional costs to operations with multiple machines. Other ramifications regarding safety, machine compatibility, and longevity associated with this VDECS (or any other VDECS) are all unknowns at this time



The proposed regulations require those engines and machines that have been certified to Tier 1, Tier 2, and Tier 3 standards to be retrofitted, while older, in-use machines will continue to run probably with no VDECS. If this is the case, companies that have made extra efforts to update their fleets will be required to improve Tier 1, Tier 2, & Tier 3 engines while older machines continue to run.

This further illustrates the point that the rule does not focus on areas that have the potential for the greatest gains. We strongly feel that investments made in Tier 1, Tier 2, and Tier 3 engines and equipment should be allowed to live a normal and properly maintained life.

Finally, the regulatory deadline of December 31<sup>st</sup>, 2015 (only ten years from now) when all operating construction equipment in the State of California will be mandated to operate under the Tier 4 PM standard is unattainable.

Technical review and status report-

The technical review and status report must be complete prior to adoption of the regulations. It would be impossible to adopt an effective control measure without understanding the cost effectiveness of different control strategies.

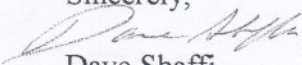
Enforcement-

The Regulatory Concepts do not address enforcement, which is a key component of the regulation. A program as complicated and costly as this will lead to an environment in which many operators will simply not be able to fully comply and in which CARB will not be able to achieve effective enforcement.

In conclusion, we draw your attention to the primary purpose of the proposed regulations as stated in the introductory paragraph of the Preliminary Regulatory Concepts: "The primary purpose of this measure is to reduce diesel PM emissions from off-road equipment as much as technically and economically feasible in the short- and long-term." To make this happen, we feel that regulations must be structured so that operators focus on reducing emissions where the greatest and most cost effective gains can be achieved and not just where a VDECS is available.

We thank you and your staff at the In Use Controls Section of the California Air Resources board for considering our comments. This is a very significant rule making for our company, and we look forward to working further with you.

Sincerely,

  
Dave Sbaffi

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